

FORM 1

REGULATION 9

COMMONWEALTH OF AUSTRALIA

PATENTS ACT 1952

APPLICATION FOR A STANDARD PATENT

We, HOOD COMPUTERS PTY LIMITED, of 121 Bath Road, Kirrawee,  
New South Wales, 2232, Australia, hereby apply for the grant of a  
Standard Patent for an invention entitled:-

"SUPPORT PLATFORM"

which is described in the accompanying Provisional Specification.

Our address for service is:

SHELSTON WATERS  
55 Clarence Street  
SYDNEY, N.S.W. 2000.

DATED this 16th day of July, 1987

HOOD COMPUTERS PTY LIMITED

by

*W. J. Lloyd*

Fellow Institute of Patent Attorneys of Australia  
of SHELSTON WATERS

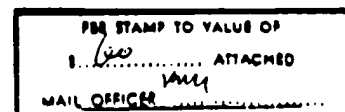
LODGED AT SUB-OFFICE  
16 JUL 1987  
Sydney



To: The Commissioner of Patents  
WODEN A.C.T. 2606

File: D.B.155(I)

Fee: \$60.00



(NON-CONVENTION—Company)

FORM 7—REGULATION 12 (1)

COMMONWEALTH OF AUSTRALIA

PATENTS ACT, 1952-1973

DECLARATION IN SUPPORT OF AN APPLICATION FOR A PATENT.

(a) Here insert (in full) Name of Company. In support of the Application made by (a) HOOD COMPUTERS PTY. LIMITED

(hereinafter referred to as "Applicant") for a patent for an invention entitled:  
"SUPPORT PLATFORM"

(b) Here insert Title of invention.

(c) Here insert Full Name and Address of Company Official authorised to make declaration.

I, (c) MR. VICTOR ANTHONY PECK  
of 7 CLIFFORD ROAD,  
YOWIE BAY N.S.W. 2228

do solemnly and sincerely declare as follows:

1. I am authorised by Applicant to make this declaration on its behalf.

(d) Here insert (in full) Name and Address of Actual Inventor(s).

2. (d) MR. VICTOR ANTHONY PECK  
7 CLIFFORD ROAD  
YOWIE BAY N.S.W. 2228

~~is/are~~  
the actual inventor(s) of the invention and the facts upon which Applicant is entitled to make the Application are as follows:

Applicant is the Assignee of the said Inventor(s).

Declared at KIMMAREE  
this Twenty First day of January 19 87

(e) Personal Signature of Declarant (c) (no seal, witness or legalisation).

(e) [Signature]

To THE COMMISSIONER OF PATENTS.

SHELSTON WATERS

PATENT ATTORNEYS

55 CLARENCE STREET, SYDNEY

AUSTRALIA

Cables: 'Valid' Sydney Telex: 24422

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**(12) PATENT ABSTRACT      (11) Document No.    AU-A-19015/88**  
**(19) AUSTRALIAN PATENT OFFICE**  
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(54) Title  
**SUPPORT PLATFORM**

(51)4 International Patent Classification  
**A47B 021/02**

(21) Application No. : 19015/88    (22) Application Date : 16.07.87

(23) Filing Date of Complete Specification : 13.07.88

(43) Publication Date : 19.1.89

(60) Related to Provisional(s) : PI3133

(71) Applicant  
**HOOD COMPUTERS PTY. LIMITED**

(72) Inventor  
**VICTOR ANTHONY PECK**

(74) Attorney or Agent  
**SHELSTON WATERS**

(57) Claim

1. A support platform comprising a first support surface and a second support surface height adjustable with respect to the first, said second surface being connected with the first surface by hinge means which maintain said first and second surfaces substantially parallel at each height of the second surface, and said hinge means including a single selectively releasable locking mechanism operable whilst grasping a marginal edge of said second surface to allow single handed height adjustment thereof.

COMMONWEALTH OF AUSTRALIA

FORM 10

PATENTS ACT 1952

C O M P L E T E      S P E C I F I C A T I O N

FOR OFFICE USE:

Class

Int.Class

Application Number:  
Lodged:

Complete Specification Lodged:  
Accepted:  
Published:

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..... Priority:

..... Related Art:

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..... Name of Applicant: HOOD COMPUTERS PTY. LIMITED

..... Address of Applicant: 56 Bath Road, KIRRAWEE, New South Wales,  
2232, Australia

.....

Actual Inventor: VICTOR ANTHONY PECK

..... Address for Service: SHELSTON WATERS, 55 Clarence Street, Sydney

.....

Complete Specification for the Invention entitled:

"SUPPORT PLATFORM"

The following statement is a full description of this invention,  
including the best method of performing it known to me/us:-

Complete of PI3133 dated  
16th July, 1987

000942 13/07/88

This invention relates to support platforms of the type used for word processor terminals, computer terminals, typewriters and similar devices. More particularly, the invention relates to support platforms having a first support surface and a second support surface height adjustable with respect to the first.

10 The second support surface is normally used to support a keyboard which can be height adjusted to suit the operator. This not only increases operator's comfort but also is thought to lessen the likelihood of the operator suffering repetitive strain injury. The first support surface of the platform is used to support the body of the device, usually including a video display, which does not require height adjustment.

20 Known support platforms of this type provide for height adjustment of the second support surface by operating a releasable locking mechanism with one hand and simultaneously adjusting the support to the required height with the other. When the required height is attained the locking mechanism is manipulated to lock the support in position. The need for two hands to adjust the prior art support platforms makes adjustment inconvenient and cumbersome.

It is an object of this invention to provide a support platform which will overcome, or at least ameliorate, the above disadvantage.

Accordingly, this invention consists in a support platform comprising a first support surface and a second

support surface height adjustable with respect to the first, said second surface being connected with the first surface by hinge means which maintain said first and second surfaces substantially parallel at each height of the second surface, and said hinge means including a single selectively releasable locking mechanism operable whilst grasping a marginal edge of said second surface to allow single handed height adjustment thereof.

For preference, the hinge means comprise two parallel arms of substantially equal length each pivotally connected adjacent each end respectively with the first and second support surfaces. The locking means preferably includes an extension of one of said arms which is releaseably engaged by detent means to prevent pivotal movement of the arm thus locking the hinge means. Preferably the extension of the arm is toothed and the detent comprises a pawl or a correspondingly toothed member.

The hinge means preferably includes resilient biasing acting between the pivotal connection of one arm and a point intermediate the pivotal connections of the other arm so as to act against the downward force imposed by the weight of the second support surface.

One embodiment of this invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a schematic perspective view showing the relevant portions of a support platform according to this invention;

Figure 2 is a view in the direction 2-2 of Figure 1;

and

Figure 3 is a part section along the line 3-3 of Figure 1.

As shown in Figures 1 to 3 a support platform 10 comprises a first planar support surface 11 and a second planar support surface 12 which is height adjustable with respect to the first. Surface 11 can form part of a desk (not shown) and can be supported in the conventional manner by legs or the like (not shown). Surface 11 can also be supported by attachment to a wall (not shown) for example.

Two hinge arrangements 13, 14 comprise hinge means which maintain surface 11 and surface 12 substantially parallel at each height of surface 12. The hinge arrangements 13, 14 are generally similar each including two right angle brackets 15, 15A, 16, 16A respectively fastened to surfaces 11 and 12 by screws 17. Each hinge 13, 14 has a pair of parallel arms 18, 18A, 19, 19A of substantially equal length.

The upper arms 18, 18A are rigidly interconnected by a rectangular hollow section (RHS) 20 joined to the mid points of the arms for example by electric arc welding. The arms 18, 19A are pivotally connected adjacent each end by means of bolts at 21, 21A and 22, 22A respectively to the surfaces 11 and 12 via the corresponding right angle brackets. Similarly, lower arms 19, 19A are pivotally connected adjacent each end by means of bolts at 23, 23A and 24, 24A.

An extension spring 25 is connected between pivotal connection 21 and a point between the pivotal connections of arm 19 to provide resilient biasing acting against the downward forward imposed on hinge 13 by the weight of surface 12. In this way the effort required to adjust the height of surface is lessened.

10 The distances between pivots 21, 21A and 22, 22A is equal to the distances between pivots 23, 23A and 24, 24A. Further the distances between 21, 21A and 23, 23A is equal to that between 22, 22A and 24, 24A. It will therefore be apparent that the hinges 13, 14 form a parallelogram which results in surfaces 11 and 12 being kept parallel at each height of surface 12.

20 A single selectively operable locking mechanism is associated with hinge 13. The mechanism takes the form of a toothed extension 26 of arm 18 which projects beyond pivotal connection 22 and into which a correspondingly toothed member 27 is releaseably engaged. Extension 26 is kept in alignment by means of a pin 28 which projects into guiding groove 29. Toothed member 27 is mounted the end of a shaft 30 mounted for longitudinal movement in a guide 31 affixed to bracket 16 for example by welding. A handle 32 is formed on the other end of shaft 30 and a compression spring 33 contained within guide 31 biases the shaft 30 in a direction to maintain engagement of member 27 with toothed extension 26. The member 27 is disengaged from toothed extension 25 by pulling on handle 32. When handle 33 is released member 27 is urged into



engagement with extension 25 by spring 33. It will be apparent that toothed member 27 comprises detent means since engagement of the member prevents pivotal movement of arm 18. This locks the hinge 13 and retains surface 12 at the selected height.

Handle 32 is positioned adjacent a marginal edge of surface 12 so that the handle and edge can be simultaneously grasped with one hand. Thus to adjust the height of surface 12 the marginal edge of the surface is grasped and two fingers hooked around handle 32. The handle is pulled toward the edge thus releasing member 27 and unlocking the hinge 13. Surface 12 is then moved to the required height using the same hand and handle 32 is released to lock the hinge 13 at the new height.

In this way the support platform of this invention provides for simple single handed height adjustment of second support surface 12.

The foregoing describes only one embodiment of this invention and modifications may be made thereto without departing from the scope of the invention. For example, any number of hinges 14 which do not include a locking mechanism can be provided as required.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:-

1. A support platform comprising a first support surface and a second support surface height adjustable with respect to the first, said second surface being connected with the first surface by hinge means which maintain said first and second surfaces substantially parallel at each height of the second surface, and said hinge means including a single selectively releasable locking mechanism operable whilst grasping a marginal edge of said second surface to allow single handed height adjustment thereof.
2. A support platform as claimed in claim 1 wherein said hinge means comprise two parallel arms of substantially equal length each pivotally connected adjacent each end respectively with the first and second support surfaces.
3. A support platform as claimed in claim 2 wherein said locking mechanism comprises an extension of one of said arms which is releasably engaged by detent means to prevent pivotal movement of the arm and lock the hinge means.
4. A support platform as claimed in claim 3 wherein extension is toothed and said detent means comprises a correspondingly toothed member.
5. A support platform as claimed in any one of claims 2 to 4 wherein said hinge means include resilient biasing acting between the pivotal connection of one of said arms and a point intermediate the pivotal connections of the other arm so as to act against the downward force imposed

by the weight of the second support surface.

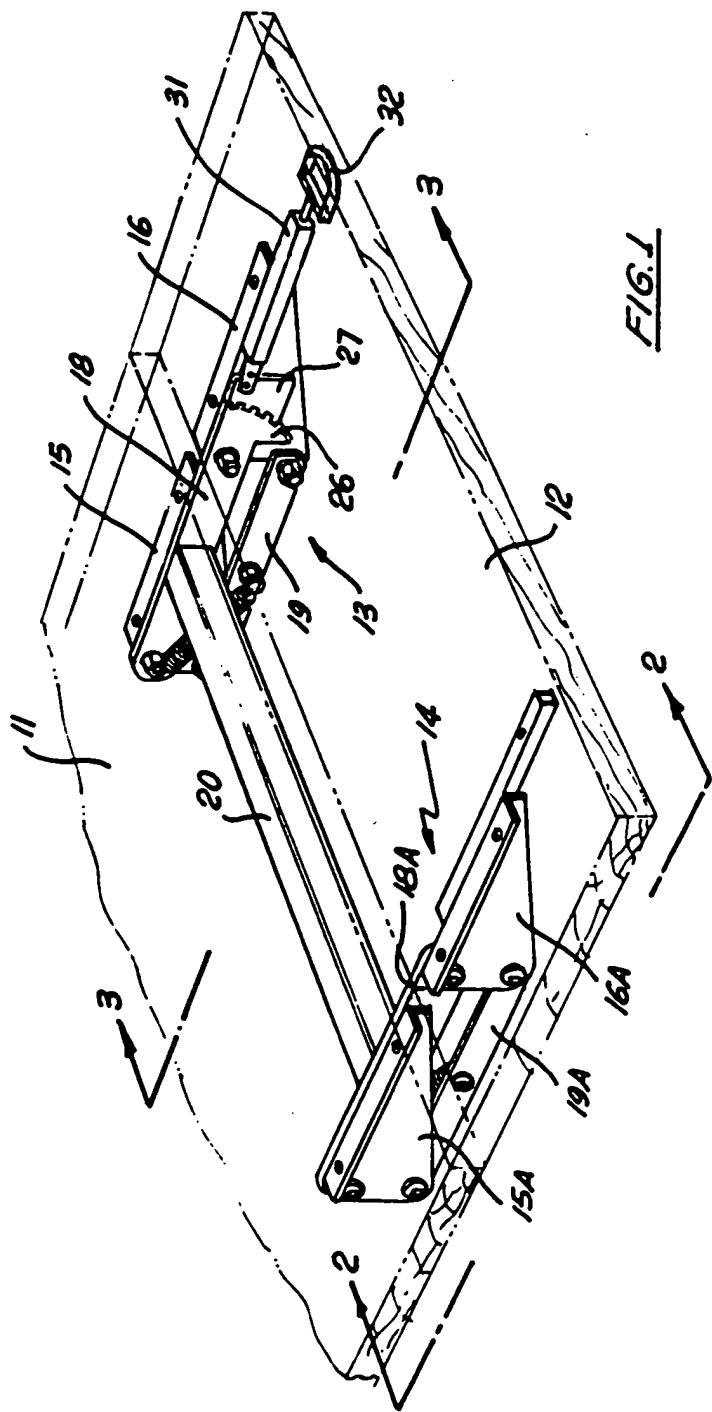
6. A support platform substantially as herein described with reference to Figures 1 to 3 of the accompanying drawings.

DATED this 12th Day of July, 1988.

HOOD COMPUTERS PTY. LIMITED

Attorney: LEON K. ALLEN

Fellow Institute of Patent Attorneys of Australia  
of SHELSTON WATERS



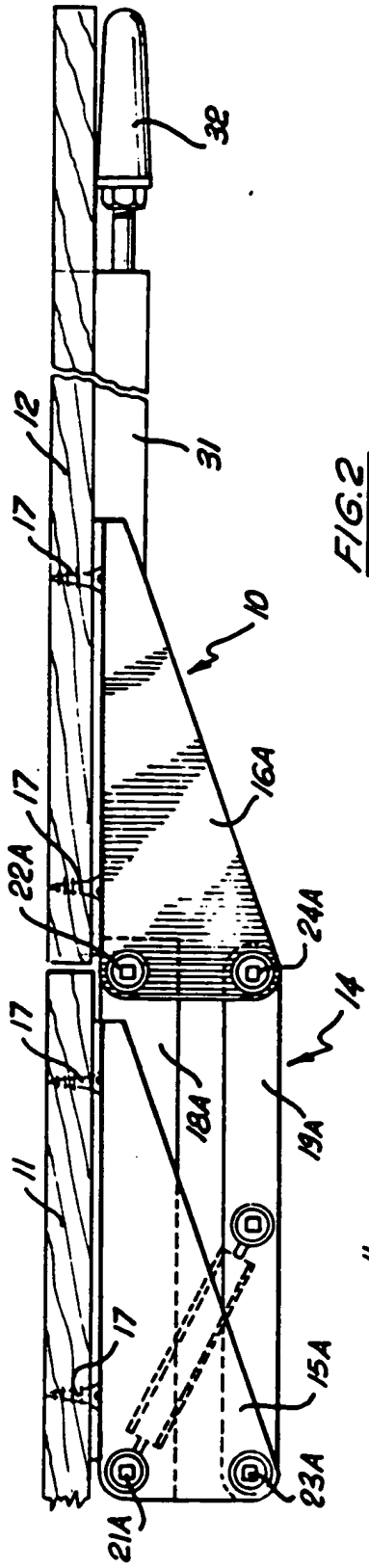


FIG. 2

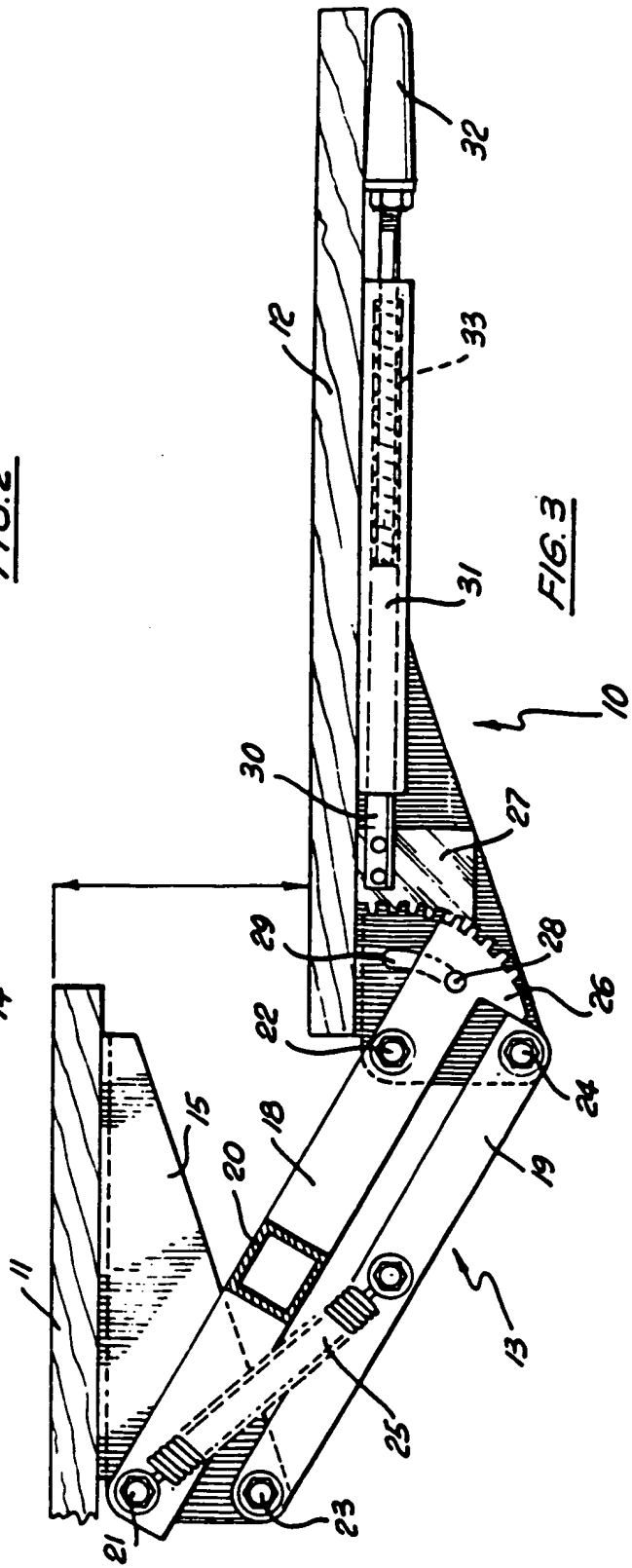


FIG. 3